

SAFETY DATA SHEET

STO-50 Silicone Transformer Oil



Data Prepared: May 19, 2015

SECTION 1: Identification

Product name : STO-50 Silicone Transformer Oil

Product code : STO-50

Manufacturer or supplier details

Company name of supplier : Clearco Products Co Inc.

Address : 15 York Rd.
Willow Grove, PA 19090 U.S.A.

Telephone : 215-366-7860

Emergency Telephone : **CHEM TEL: 1-800-255-3924 (DOMESTIC)**
+01-813-248-0585 (INTERNATIONAL)

Recommended use of the chemical and restrictions on use

Recommended use : Electrical industry and electronics
Insulating materials

SECTION 2: Hazards identification

GHS Classification

Not a hazardous substance or mixture.

GHS Label element

Not a hazardous substance or mixture.

Other hazards

None known.

SECTION 3: Composition/information on ingredients

Substance/ Mixture : Substance
Substance Name : Dimethyl Siloxane, Trimethylsiloxy/terminated
CAS -no. : 63148-62-9
Chemical nature : Silicone

Hazardous components : No hazardous ingredients

SECTION 4: First aid measures

If inhaled : If inhaled, remove to fresh air.
Get medical attention if symptoms occur.

In case of skin contact : Wash with water and soap as a precaution.
Get medical attention if symptoms occur.

In case of eye contact : Flush eyes with water as a precaution.
Get medical attention if irritation develops and persists.

If swallowed	: If swallowed, DO NOT induce vomiting. Get medical attention if symptoms occur. Rinse mouth thoroughly with water.
Most important symptoms and effects, both acute and delayed	None known.
Protection of first-aiders	: No special precautions are necessary for first aid responders.
Notes to physician	: Treat symptomatically and supportively.

SECTION 5: Firefighting measures

Suitable extinguishing media	: Water spray Alcohol-resistant foam Dry chemical Carbon dioxide (CO ₂)
Unsuitable extinguishing media	: None known.
Specific hazards during firefighting	: Exposure to combustion products may be a hazard to health
Hazardous combustion products	: Carbon oxides Silicon oxides Formaldehyde
Special protective equipment for fire-fighters	: Wear self-contained breathing apparatus for firefighting if necessary.
Specific extinguishing methods	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Cool unopened containers/tanks with water spray. Remove undamaged containers from fire area if it is safe to do so. Evacuate area.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures	: Follow safe handling advice and personal protective equipment recommendations
Environmental precautions	: Discharge into the environment must be avoided. Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g. by containment or oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.
Methods for cleaning up	: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container. Clean up remaining

materials from spill with suitable absorbent.
 Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.
 Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

SECTION 7: Handling and storage

Technical measures	: See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.
Local/Total ventilation	: Use only with adequate ventilation.
Advice on safe handling	: Handle in accordance with good industrial hygiene and safety practice. Take care to prevent spills, waste and minimize release to the environment.
Conditions for safe storage	: Keep in properly labelled containers. Store in accordance with the particular national regulations.
Materials to avoid	: Do not store with the following product types: Strong oxidizing agents

SECTION 8: Exposure controls/personal protection

Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

Engineering measures

Processing may form hazardous compounds (see section 10).
 Ensure adequate ventilation, especially in confined areas.
 Minimize workplace exposure concentrations.

Personal protective equipment

Eye protection	: Wear the following personal protective equipment: Safety glasses
Hand protection	
Remarks	: Wash hands before breaks and at the end of workday.
Skin and body protection	: Skin should be washed after contact.
Respiratory protection	: No personal respiratory protective equipment normally required.

Hygiene measures : Ensure that eye flushing systems and safety showers are located close to the working place.
 When using do not eat, drink or smoke.
 Wash contaminated clothing before re-use.
 These precautions are for room temperature handling. Use at elevated temperature or aerosol/spray applications may require added precautions.
 For further information regarding the use of silicones/organic oils in consumer aerosol applications, please refer to the guidance document regarding the use of these type of materials in consumer aerosol applications that has been developed by the silicone industry (www.SEHSC.com) or contact the Clearco Products customer service group.

SECTION 9: Physical and chemical properties

Appearance	: liquid
Colour	: colourless
Odour	: characteristic
Odour Threshold	: No data available
pH	: No data available
Melting point/freezing point	: No data available
Initial boiling point and boiling range	: > 65 °C
Flash point	: > 101 °C Method: closed cup
Evaporation rate	: No data available
Flammability (solid, gas)	: Not applicable
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: No data available
Relative vapour density	: No data available
Relative density	: 0.96
Solubility(ies) Water solubility	: No data available
Partition coefficient: noctanol/water	: No data available
Auto-ignition temperature	: No data available

Thermal decomposition	: No data available
Viscosity	
Viscosity, kinematic	: 50 cSt
Explosive properties	: Not explosive
Oxidizing properties	: The substance or mixture is not classified as oxidizing.
Molecular weight	: No data available

SECTION 10: Stability and reactivity

Reactivity	:Not classified as a reactivity hazard.
Chemical stability	:Stable under normal conditions.
Possibility of hazardous reactions	: Use at elevated temperatures may form highly hazardous compounds. Can react with strong oxidizing agents. Hazardous decomposition products will be formed at elevated temperatures.
Conditions to avoid	: None known.
Incompatible materials	: Oxidizing agents
Hazardous decomposition products	
Thermal decomposition	: Formaldehyde

SECTION 11: Toxicological information

Information on likely routes of exposure

Inhalation
Skin contact
Ingestion
Eye contact

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity	: LD50 (Rat): > 15,400 mg/kg Assessment: The substance or mixture has no acute oral toxicity. Remarks: Based on data from similar materials
Acute dermal toxicity	: LD50 (Rabbit): > 2,000 mg/kg Assessment: The substance or mixture has no acute dermal toxicity Remarks: Based on data from similar materials

Skin corrosion/irritation

Not classified based on available information.

Product:

Species : Rabbit
Result : No skin irritation
Remarks : Based on data from similar materials

Serious eye damage/eye irritation

Not classified based on available information.

Product:

Species : Rabbit
Result : No eye irritation
Remarks : Based on data from similar materials

Respiratory or skin sensitization

Skin sensitization: Not classified based on available information.

Respiratory sensitization: Not classified based on available information.

Product:

Assessment: Does not cause skin sensitisation.

Test Type : Maximization Test (GPMT)
Species : Guinea pig
Remarks : No known sensitizing effect.
Based on test from similar material

Germ cell mutagenicity

Not classified based on available information.

Product:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative
Remarks: Based on test data

Carcinogenicity

Not classified based on available information.

Product:

Species : Rat
Application Route : Ingestion
Result : negative
Remarks : Based on data from similar materials

Carcinogenicity – Assessment : Animal testing did not show any carcinogenic effects.

IARC

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by OSHA.

NTP

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by NTP.

Reproductive toxicity

Not classified based on available information.

Product:

Effects on fertility

: Species: Rabbit, male
Application Route: Ingestion
Symptoms: No effects on fertility.
Remarks: Based on data from similar materials

Effects on fetal development

: Test Type: Prenatal development toxicity study (teratogenicity)
Species: Rabbit, female
Application Route: Skin contact
Symptoms: No effects on fetal development.
Remarks: Based on data from similar materials.

Reproductive toxicity – Assessment

: No evidence of adverse effects on sexual function and fertility, or on development, based on animal experiments.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Product:

Exposure routes

: Ingestion

Assessment

: No significant health effects observed in animals at concentrations of 100 mg/kg bw or less.

Exposure routes

: Skin contact

Assessment

: No significant health effects observed in animals at concentrations of 200 mg/kg bw or less.

Repeated dose toxicity**Product:**

Species: Rat

Application Route: Ingestion

Remarks: Based on data from similar materials

Species: Rabbit

Application Route: Skin contact

Remarks: Based on data from similar materials

Aspiration toxicity

Not classified based on available information.

SECTION 12: Ecological information**Ecotoxicity**

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

No data available

SECTION 13: Disposal considerations**Disposal methods**

Resource Conservation and
Recovery Act (RCRA)

: This product has been evaluated for RCRA characteristics
and does not meet the criteria of hazardous waste if discarded
in its purchased form.

Waste from residues

: Dispose of in accordance with local regulations.

Contaminated packaging

: Dispose of as unused product.
Empty containers should be taken to an approved waste handling site
for recycling or disposal.

SECTION 14: Transport information**International Regulation****UNRTDG**

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied

Domestic regulation**49 CFR**

Not regulated as a dangerous good

SECTION 15: Regulatory information**EPCRA-Emergency Planning and Community Right-to-Know****CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards
SARA 302**

: No SARA Hazards
: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313

: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US State Regulations

Pennsylvania Right to Know

Dimethyl Siloxane, Trimethylsiloxy-terminated	63148-62-9	90-100%
---	------------	---------

New Jersey Right To Know

Diemethyl Siloxane, Trimethylsiloxy-terminated	63148-62-9	90-100%
--	------------	---------

California Prop 65

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

The ingredients of this product are reported in the following inventories:

KECI	: All ingredients listed, exempt or notified.
REACH	: All ingredients (pre)-registered or exempt
TSCA	: All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.
AICS	: All ingredients listed or exempt.
IECSC	: All ingredients listed or exempt.
ENCS/ISHL	: All components are listed on ENCS/ISHL or exempted from inventory listing.
PICCS	: All ingredients listed or exempt.
DSL	: All chemical substances in this product comply with the CEPA 1999 and NSNR and are on or exempt from listing on the Canadian Domestic Substances list (DSL).
NZIoC	: All ingredients listed or exempt.

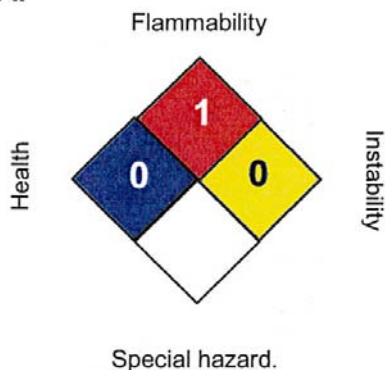
Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA(USA).

SECTION 16: Other information

Further Information

NFPA:



HMIS III:

HEALTH	0
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = not significant, 1 =Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

Sources of key data used to compile the Material Safety Data Sheet

: Interim technical data, data from raw materials SDSs, OECD eChem Portal search results and European Chemicals Agency, <http://echa.europa.edu/>

Revision Date

:01/07/2015

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.